

WHAT IS CLAIMED IS:

1. An isolated antibody that binds to a polypeptide having at least 80% amino acid sequence identity to:

(a) the polypeptide shown in any one of Figures 22-42 (SEQ ID NOS:22-42);

(b) the polypeptide shown in any one of Figures 22-42 (SEQ ID NOS:22-42), lacking its associated signal peptide;

(c) an extracellular domain of the polypeptide shown in any one of Figures 22-42 (SEQ ID NOS:22-42), with its associated signal peptide;

(d) an extracellular domain of the polypeptide shown in any one of Figures 22-42 (SEQ ID NOS:22-42), lacking its associated signal peptide;

(e) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-21 (SEQ ID NOS:1-21); or

(f) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-21 (SEQ ID NOS:1-21).

2. An isolated antibody that binds to a polypeptide having:

(a) the amino acid sequence shown in any one of Figures 22-42 (SEQ ID NOS:22-42);

(b) the amino acid sequence shown in any one of Figures 22-42 (SEQ ID NOS:22-42), lacking its associated signal peptide sequence;

(c) an amino acid sequence of an extracellular domain of the polypeptide shown in any one of Figures 22-42 (SEQ ID NOS:22-42), with its associated signal peptide sequence;

(d) an amino acid sequence of an extracellular domain of the polypeptide shown in any one of Figures 22-42 (SEQ ID NOS:22-42), lacking its associated signal peptide sequence;

(e) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-21 (SEQ ID NOS:1-21); or

(f) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-21 (SEQ ID NOS:1-21).

3. The antibody of Claim 2 which is a monoclonal antibody.

4. The antibody of Claim 2 which is an antibody fragment.

5. The antibody of Claim 2 which is a chimeric or a humanized antibody.

6. The antibody of Claim 2 which is conjugated to a growth inhibitory agent.

7. The antibody of Claim 2 which is conjugated to a cytotoxic agent.

8. The antibody of Claim 7, wherein the cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

9. The antibody of Claim 7, wherein the cytotoxic agent is a toxin.

5 10. The antibody of Claim 9, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

11. The antibody of Claim 9, wherein the toxin is a maytansinoid.

10 12. The antibody of Claim 2 which is produced in bacteria.

13. The antibody of Claim 2 which is produced in CHO cells.

14. The antibody of Claim 2 which induces death of a cell to which it binds.

15 15. The antibody of Claim 2 which is detectably labeled.

16. An isolated nucleic acid having a nucleotide sequence that encodes the antibody of Claim 2.

20 17. An expression vector comprising the nucleic acid of Claim 16 operably linked to control sequences recognized by a host cell transformed with the vector.

18. A host cell comprising the expression vector of Claim 17.

25 19. The host cell of Claim 18 which is a CHO cell, an *E. coli* cell or a yeast cell.

20. A process for producing an antibody comprising culturing the host cell of Claim 18 under conditions suitable for expression of said antibody and recovering said antibody from the cell culture.